

DOUBLE NO. 117 1 2014

S1, CS1, CS2

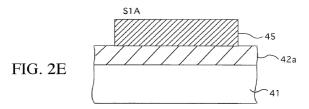


FIG. 3A

Film Density Measured by the X-Ray Interference Method

Examined Film		PE-CVD TEOS	PE-CVD SiH <sub>4</sub>	Thermal SiO <sub>2</sub>
Type	SiO <sub>2</sub> Film	SiO <sub>2</sub> Film	SiO <sub>2</sub> Film	Film
Film Density (g/cm³)	2.33	2.26	2.24~2.30	2.23

FIG. 3B

Film Density Measured by the Weight Measurement

Examined Film	PE-CVD TMS	PE-CVD TEOS	PE-CVD SiH <sub>4</sub>
Type	SiO <sub>2</sub> Film	SiO <sub>2</sub> Film	SiO <sub>2</sub> Film
Film Density (g/cm³)	2.33	2.1~2.2	2.20

FIG. 4

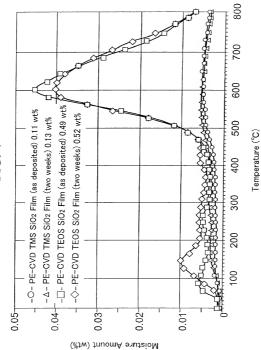


FIG. 5A

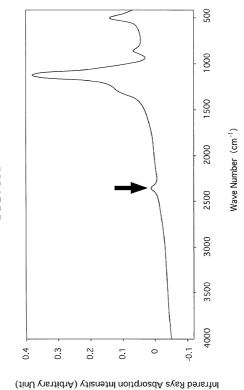


FIG. 5B

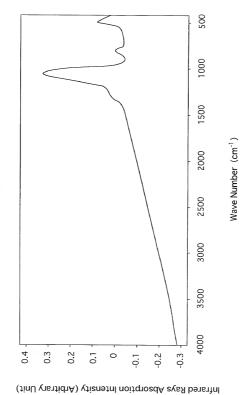


FIG. 6

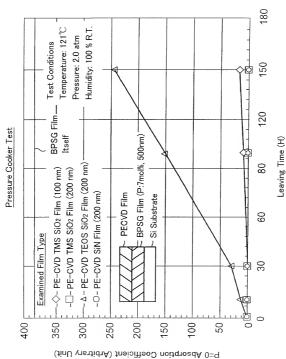
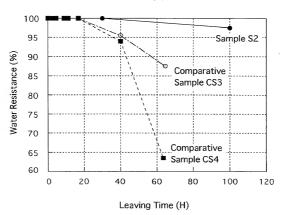


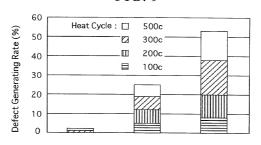
FIG. 7



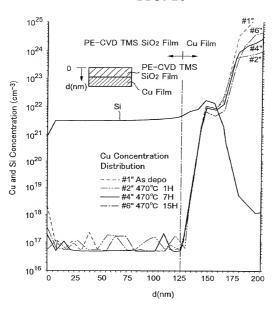
## FIG. 8

Underlyng Low Dielectric Constant Insulating	ric Constant Insulating	Examined Film Type	Film Type
e di di	Surface Treatment	PE-CVD TMS SiO <sub>2</sub> Film	PE-CVD TEOS SiO <sub>2</sub> Film
Inorganic Coating Insulating Film	Applied	0	◁
k=2.9	Not Applied	0	×
Organic Coating	Applied	0	◁
insulating Film k=2.8	Not Applied	0	×

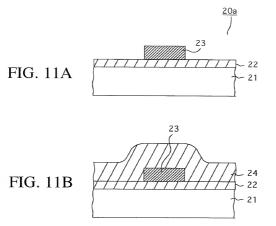
FIG. 9

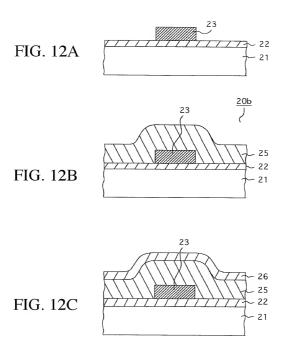


Sample S6 Comparative Comparative Sample CS8 Sample CS9



TOGETTE STAGE





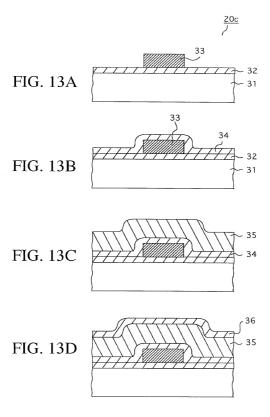
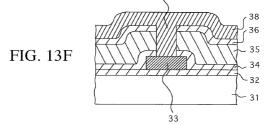
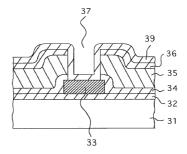


FIG. 13E



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FIG. 14A





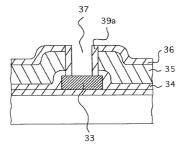


FIG. 14C

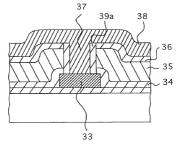


FIG. 15

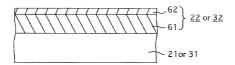


FIG. 16

